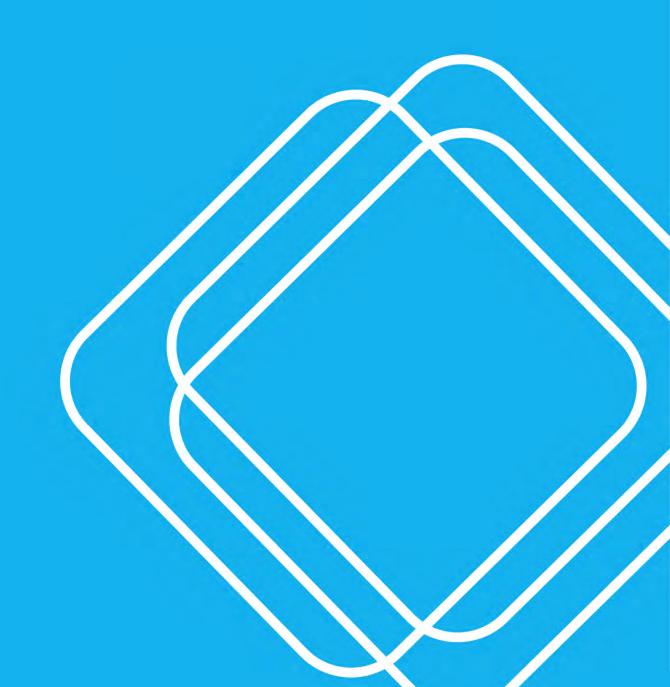
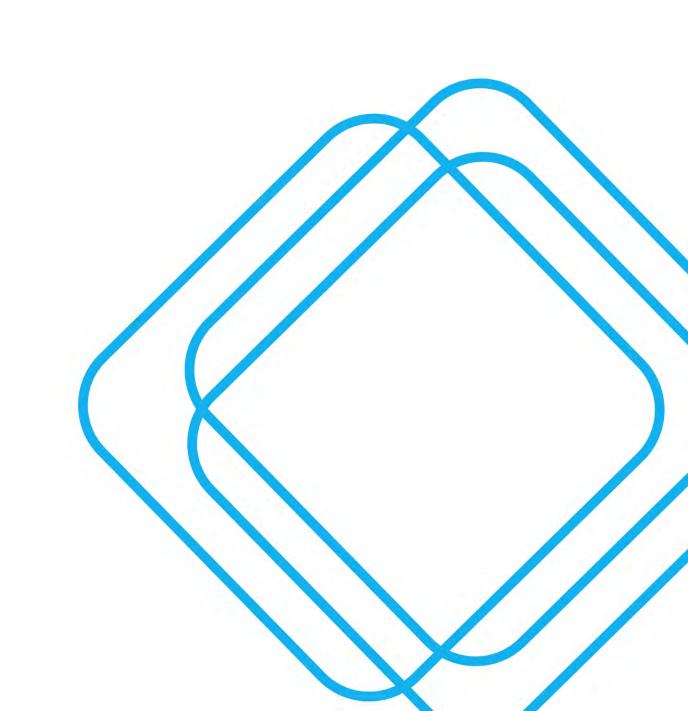


CONSTRUCTION TRAFFIC AND PEDESTRIAN MANAGEMENT SUB-PLAN

Wentworth Point new High School

18 OCTOBER 2022





Quality Assurance

4.0 5.0

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Wentworth Point new High School					
SCT_00265					
Construction Traffic and	l Pede	strian Management Sub-F	Plan		
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Date	Details Internal draft				
11 February 2022					
15 February 2022	Internal draft Internal draft				
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Draft issued to Council and TfNSW

Final issued to Council and TfNSW

Final draft issued to Council and TfNSW

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28 September 2022

11 October 2022

19 October 2022

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1.0 Context

1.1 Introduction

SCT Consulting was engaged by Roberts Co for Wentworth Point new high school. As part of the scope of the work, it is required to develop a Construction Traffic Management Plan (CTMP).

As per the 2022/2023 budget papers, this project is now referred to as "Wentworth Point new high school". Future documentation relating to this project, including this document, will be labelled accordingly.

Due to the SSD-11802230 application being submitted as "Sydney Olympic Park new high school", the project name will remain the same on the Planning Portal and future documentation may reference this.

Please also note 'Wentworth Point new high school' is the placeholder name for the school. The school naming will occur closer to opening, following a community consultation process.

The proposed development is for the construction of Wentworth Point new high school, which is located within the peninsula of Wentworth Point at 3 Burroway Road, Wentworth Point across parts of three lots: Lot 202 DP1216628, Lot 203 DP1216628 and Lot 204 DP1216628. The school will cater for up to 850 students.

The site forms part of the Wentworth Point Planned Precinct, which was rezoned in 2014 for high-density residential, public recreation, school, and business purposes.

1.2 Satisfaction of conditions of consent

A reconciliation of the conditions of consent and this document is provided in Table 1-1.

Table 1-1	Evaluation of co	nditions of consen	t relating to co	Instruction traffi	c management plan
		nultions of consen	t relating to co		c management plan

Condition	Detail	Response
	The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following	This document is a construction traffic management plan
	(a) be prepared by a suitably qualified and experienced person(s);	The Construction Traffic Management Plan has been prepared under the guidance of a chartered traffic engineer. Traffic Guidance Schemes are prepared by an accredited individual. Refer to Appendix A for CVs of the people who prepared the contents.
	(b) be prepared in consultation with Council and TfNSW;	Feedback from TfNSW and Council was sought and incorporated as shown in Appendix D.
B15	 (c) detail: (i) measures to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; 	Refer to Section 4.0.
	(ii) measures to ensure the safety of vehicles and pedestrians accessing adjoining properties where shared vehicle and pedestrian access occurs;	Refer to Section 4.0 . Refer to Appendix C , which shows the traffic guidance scheme for the management of impacts on other modes.
	(iii) heavy vehicle routes, access and parking arrangements;	Refer to Sections 2.4 and 6.1.
	(iv) the swept path of the longest construction vehicle entering and exiting the site in association with the new work, as well as manoeuvrability through the site, in accordance with the latest version of AS 2890.2; and	Refer to Appendix B , which shows that the access points can be entered and exited in a forward direction and manoeuvring within the site.
	(v) arrangements to ensure that construction vehicles enter and leave the site in a forward direction unless in specific exceptional	Refer to Appendix C , which proposed a traffic guidance scheme that proposes traffic control at site entry/exit points.
	circumstances under the supervision of accredited traffic controller(s).	Refer to Appendix B , which shows that the access points can be entered and exited in a forward direction.
	A Driver Code of Conduct must be prepared and communicated by the Applicant to heavy vehicle drivers and must address the following:	
B20	(a) minimise the impacts of earthworks and construction on the local and regional road network;	Refer to Section 5.0.
	(b) minimise conflicts with other road users;	
	(c) minimise road traffic noise; and	
	(d) ensure truck drivers use specified routes	

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Condition	Detail	Response
B21	Prior to the commencement of construction, the Applicant must submit a Construction Worker Transportation Strategy to the Certifier. The Strategy must detail the provision of sufficient parking facilities or other travel arrangements for construction workers in order to minimise demand for parking in nearby public and residential streets or public parking facilities. A copy of the strategy must be provided to the Planning Secretary within two working days of it being requested.	A Construction Worker Transportation Strategy is provided in Section 6.0 .

1.3 Council CTMP approval conditions

Council requires the following requirements to be undertaken as the CTMP is implemented. Roberts Co accepts these conditions:

- A dilapidation report for the existing roundabout, kerb and gutter, traffic islands and other Council assets in Burroway Road is to be provided to Council's Traffic and Transport Services (traffic@cityofparramatta.nsw.gov.au) with photos of the facility before construction commences and after completion. The applicant is liable to repair any damage caused to any Council asset to the satisfaction of Council's Civil Assets section.
- 2. Waterways Street and Wentworth Place are privately owned roads that are managed by the respective stratas. Hill Road north of Burroway Road is managed by Sydney Olympic Park. The applicant must obtain concurrence from the respective road managers prior to erecting any signage.
- 3. The Builder is to set up a hotline for nearby residents and parents of the school children that they can call should they have any complaints, concerns or need assistance regarding issues related to the construction traffic/activity and or construction worker parking.
- 4. Heavy vehicle trips during school zone times should not occur to ensure the safety of school children given the sites close proximity to Wentworth Point Public School.
- 5. An off-street construction worker parking area is to be established in parts of the lots that do not form part of the development. The capacity of construction work carpark must be enough to accommodate the workforce for all stages of the development.
- 6. The installation of a 'No Stopping' restriction to facilitate construction vehicle access will require an application for a Works Zone and approval through the Parramatta Traffic Committee.
- 7. Pedestrian movements are to maintained along Burroway Road at all times. Traffic Controllers are to be present during construction working hours to halt pedestrians whilst construction vehicles are entering/exiting the site only. At all times vehicles, entering and exiting the site are to be required to give way to pedestrians travelling on the footpath.
- 8. All activities, including loading / unloading vehicles and storage for equipment, materials and waste are to be within the works site and are not to impede traffic flow
- 9. The Builder is to keep the roadway (including footpath) in a serviceable state for the duration of the project. Road pavement/footpath damaged as a result of truck movements/ construction activity is to be maintained during the duration of development by developer at no cost to Council to satisfaction of Council's Supervisor Civil Assets.
- 10. Affected residents and businesses must be notified in writing prior to the start of the various phases of construction. The notification must include the hotline number in that they can call for construction traffic related complaints/concerns. A copy of the notification shall be submitted to City of Parramatta Council. Access to these residents and businesses must be maintained unless otherwise agreed. Any comments are to be recorded and taken into consideration when planning construction activities.
- 11. Occupation of any part of the footpath or road (mobile crane, skip bin, carrying out work, erecting/dismantling hoarding, reconstruction of footpath and the like) during construction works of the development shall require a Road Occupancy Permit from Council. The applicant is to obtain a Temporary Road Occupancy Permit through Council's Traffic and Transport Services, prior to occupying any part of the footpath or road.

- 12. The applicant is required to obtain a Hoarding/Tower Crane permit from Council prior to erecting any Hoarding/Tower Crane on Council road/footpath/construction site. The application can be access via Council's website.
- 13. City of Parramatta Council is to be notified of any future disruption to roadways and footpaths and any changes to the CTMP. The final approved version of the CTMP and any subsequent revisions are to be provided to Council for its records. It is to be noted that additional conditions may be applied to the CTMP by Council in future should public amenity be detrimentally affected.

2.0 Proposed works

2.1 Construction works overview

The school design features a six-storey building high school. The proposed construction site layout and entries are shown in **Figure 2**–1.

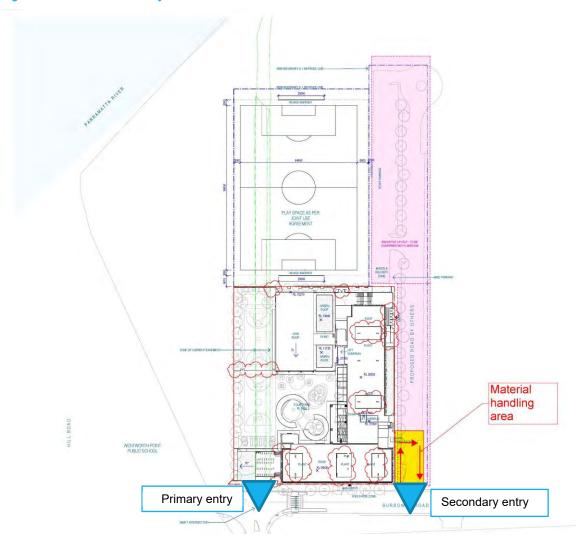


Figure 2–1 Construction site layout

Source: Roberts Co, 2022

2.2 Program and working hours

It is intended that works would be carried out as the following program:

- Early Works: October 2022 to January 2023
- Phase 1 Construction: February 2023 to December 2023
- Phase 2 Construction: February 2023 to December 2023.

Conditions C3 to C7 govern construction hours:

- C3. Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:
 - (a) between 7am and 6pm, Mondays to Fridays inclusive; and
 - (b) between 8am and 1pm, Saturdays.
 - No work may be carried out on Sundays or public holidays.
- C4. Notwithstanding condition C3, provided noise levels do not exceed the existing background noise level plus 5dB, works may also be undertaken during the following hours:
 - (a) between 6pm and 7pm, Mondays to Fridays inclusive; and
 - (b) between 1pm and 4pm, Saturdays.
- C5. Construction activities may be undertaken outside of the hours in condition C3 and C4 if required: (a) by the Police or a public authority for the delivery of vehicles, plant or materials; or
 - (b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
 - (c) where the works are inaudible at the nearest sensitive receivers; or

(d) for the delivery, set-up and removal of construction cranes, where notice of the crane-related works is provided to the Planning Secretary and affected residents at least seven days prior to the works; or

(e) where a variation is approved in advance in writing by the Planning Secretary or her nominee if appropriate justification is provided for the works.

- C6. Notification of such construction activities as referenced in condition C5 must be given to affected residents before undertaking the activities or as soon as is practical afterwards.
- C7. Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:
 - (a) 9am to 12pm, Monday to Friday;
 - (b) 2pm to 5pm Monday to Friday; and
 - (c) 9am to 12pm, Saturday.

2.3 Construction traffic

Construction workers would typically arrive in light vehicles. The designated entry gate for the light vehicle is located at the eastern end of Burroway Road, which is an existing driveway. The estimated on-site workers for different stages are shown as follows.

- Early Works: 50 workers
- Phase 1 Construction: 300 workers
- Phase 2 Construction: 150 workers.

It is expected that one worker generates one inbound trip in the morning and one outbound trip in the afternoon. The estimated light vehicle trips are shown in **Table 1**.

Stage	Vehicle length	Workers	Daily trips*
Early works	hase 1 5.2m	50 people	42 * 2 = 84 movements
Phase 1		300 people	250 * 2 = 500 movements
Phase 2		150 people	125 * 2 = 250 movements

Table 1 Light vehicle trip generation

*This has considered a vehicle occupancy of 1.2 people/car due to carpooling.

The heavy construction vehicle type and the generation are estimated in **Table 2** according to an email correspondence with Roberts Co on February 1, 2022.

Table 2 Heavy vehicle trip generation

Construction vehicle	Trins* Purnose		Purpose	
Heavy Rigid Vehicle	12.5m	50 daily movements on pour days Up to 10 otherwise	Mobile concrete booms, concrete trucks, Regenerated electrical output (REO) deliveries	
Semi-trailer	Up to 19m	Up to 2 a week	Piling rig delivery	
Truck and dog	Up to 22m	Up to 20 daily	Material loading out and bringing in	

*Note that one movement represents one directional trip.

2.4 Construction vehicle haulage routes

Figure 2–2 shows that Burroway Road and Hill Road are both approved Higher Mass Limits (HML) routes that permit a B-Double vehicle up to 26m. This facilitates the access of the construction vehicles between the site and Sydney's HML network including Parramatta Road and M4. There are no restrictions placed on this route.





There are two temporary accesses proposed to service the vehicular access during construction. **Figure 2**–1 shows the eastern access, which is the existing access on Burroway Road. It is expected that a construction vehicle needs to give way to the opposing vehicle at the accesses due to the turning manoeuvring and limited access width.

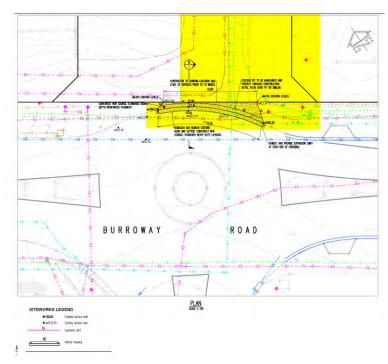
Most construction activities will occur within site the subject site, bounded by fencing to prevent unintended access by pedestrians.

A temporary layback will be constructed on the northern side of the intersection of Burroway Road/Wentworth Place to the relevant standards (**Figure 2**–3). The purpose of the layback is to allow construction vehicles to enter the site in this location. The layback will be removed after the project completion.

The construction of the layback will require undertaking construction within the road corridor on Burroway Road.

Source: TfNSW, 2022

Figure 2–3 Layback construction and work area (yellow highlight)



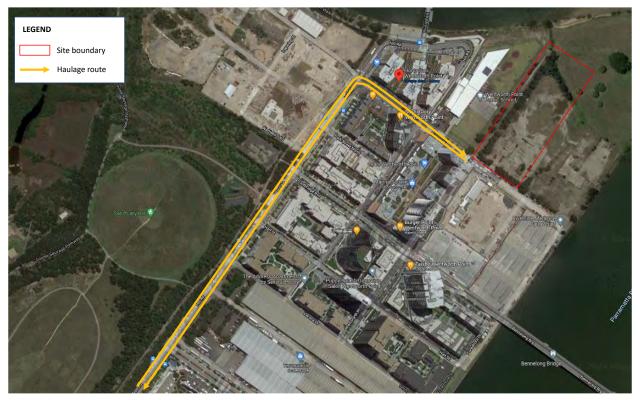
Source: TTW and Roberts Co

The proposed access route used by heavy vehicles to and from the site during the works program would be (**Figure** 2-4):

- Access to the site is via Hill Road northbound, turning right into Burroway Road, then into the two construction accesses
- Egress from the site will be via Burroway Road westbound to Hill Road turning left.

Since Burroway Road has a school zone between Wentworth Place and Hill Road, the construction vehicle movements will be minimised during school peak periods (7.30-9.30am and 2.30-4.00pm).

Figure 2–4 Haulage route during construction



2.5 Swept path

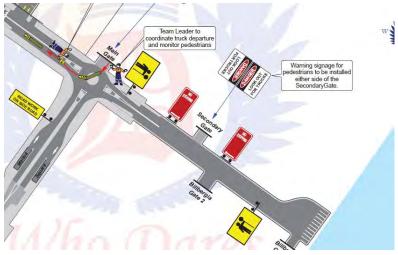
A swept path assessment has been conducted along the haulage routes to/from the site for different types of vehicles (**Appendix A**). All major vehicle types have been tested – a 19m articulated vehicle, a 12.5m rigid vehicle and a 22m truck and dog combination.

The swept path assessment sheets 15 and 16 are only applicable during the contraflow arrangements explained in **Section 4.3**.

The swept path assessment shows that the heavy vehicle manoeuvring along the haulage route is feasible and would not impact the infrastructure and on-street parking. However, some treatment is required at the below locations:

- The central island of the roundabout at Burroway Road/Wentworth Place is mountable which facilitates the truck manoeuvring, especially for the entry/exit movement at the western access.
- The turning movements of both a 19m long semi-trailer and a 22m truck and dog are workable at the intersection of Burroway Road/Hill Road. The most critical movement is the left turn from Burroway Road to Hill Road. The road space can accommodate vehicle movement with limited encroachment of the traffic island and kerb or any intrusion into the opposing traffic lane.
- The first on-street parking space to the west of the eastern access may prevent a heavy vehicle from left turning into the site. Hence, this parking space is recommended to be removed and replaced with a "No Stopping" zone (refer to Figure 2–5). There is no conflict with the on-street parking on the southern side of Burroway Road.

Figure 2–5 Location of no stopping zones proposed



Source: Who Dares, 2022

3.0 Impact identification

3.1 Construction parking impacts

The construction vehicle parking area for construction could accommodate parking for a workforce of 75 to 300 people, which satisfies the on-site parking demand for each stage.

Worker parking is proposed to occur to the east of the site in the balance of the lots not forming part of the development. The detailed parking area in different construction stages is shown in **Appendix C**.

The on-street parking on Burroway Road to the east of Wentworth Place is currently unrestricted. There is no setback of the parking spaces from the eastern access, resulting in potential conflicts between a parked vehicle and a construction vehicle to/from the site. A "No stopping" zone is recommended around the eastern access location to improve sight lines (refer **Figure 2–5**).

3.2 Pedestrian and cyclist access impacts

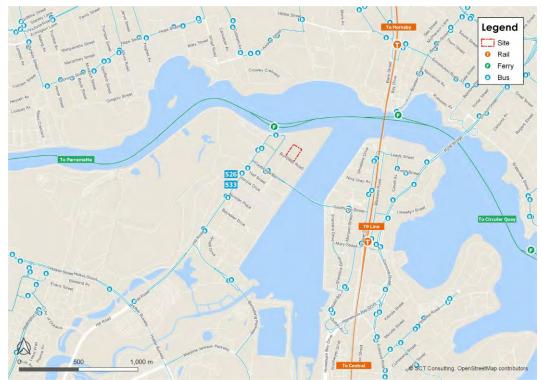
Pedestrian and cyclist access and safety need to be prioritised and alternative routes should be provided where needed. Footpaths adjacent to work sites, particularly sites with high volumes of construction vehicle movements, are proposed to be traffic controlled to manage the conflict between construction vehicles and pedestrians. Where work sites have an impact on footpaths, consideration will be given to the requirements of all pedestrians and especially users with specific requirements (e.g. elderly, strollers, disabled).

The footpath on the northern side of Burroway Road close to the site does not experience a high pedestrian demand given limited development and trip generators. However, there would still be conflicts between construction vehicles and pedestrians accessing parking on the northern side of Burroway Road at the two temporary access driveways. Traffic control plans include appropriate warning signage at these locations for pedestrians. The presence of traffic controllers is required at these locations.

3.3 Public transport impacts

There are no public bus routes that use Burroway Road adjacent to the site (**Figure 3**–1), so no public transport impacts are expected. The connection between Burroway Road and Wentworth Place is proposed to remain open at all times during construction, so if there are any temporary public transport demands, these can be catered for (e.g., an excursion for Wentworth Point Public School).





4.0 Mitigation of impacts

4.1 DFMA approach

School Infrastructure NSW is committed to using innovative, sustainable, and efficient construction techniques to assist in the delivery of the school upgrade program, which includes the use of Design for Manufacture and Assembly (DfMA) for this school's construction works.

DfMA is a design and construction process that combines the manufacture of building components, such as wall systems and facades, in a factory (off-site) environment, with on-site construction assembly.

The approach has broad benefits, including cost savings, greater scalability, and reduced impacts on operational schools. DfMA relies on the scheduled delivery of building components and modules. When compared to traditional construction methods, DfMA creates less noise, less traffic, less pollution, and less dust which results in less impact on the transport network.

The approach is paired with modular building techniques that establish a grid system of between 4.5-4.9 m - a parameter that works as an optimal module size regarding materials and transport, but also as an optimal spatial requirement for teaching spaces.

Parts are transported to the site and lifted via crane into position, after which they are assembled. It may be possible to drive the vehicle on-site. The exact location and size of the crane will be determined subject to further consultation with Council, Transport for NSW, and the community.

4.2 General impacts

Road network impacts by worker traffic to the site will be mitigated by the construction workers generally starting earlier and finishing earlier than the commuter peak periods and would likely not coincide with the school or road network peak periods. Construction workers will be encouraged to carpool, reducing the impact on the road network and local parking demands. Refer to **Section 6.0** for more details.

So as not to adversely impact the traffic system during the construction period, the construction traffic is expected to be managed as follows:

- Heavy vehicle use of Burroway Road to be limited up to one hour before and during school drop-off hours (7.30-9.30am) and up to one hour after and during drop-off hours (2.30-4.00pm).
- Truckloads would be covered during transportation off-site.
- All activities, including the delivery of materials, would not impede traffic flow along local roads.
- Materials would be delivered, and spoil removed during standard construction hours.
- Avoidance of idling trucks alongside sensitive receivers.
- Deliveries would be planned to ensure a consistent and minimal number of trucks arriving at the site at any one time.

To manage drivers' conduct the following measures are to be implemented:

- All truck movements will be scheduled.
- Vehicles are to enter and exit the site in a forward direction along the travel path shown on delivery maps.
- Drivers are to always give way to pedestrians and cyclists.

The number of vehicle movements during the construction phase is less than is forecast at the full delivery of the precinct¹. The below four intersections were shown to operate at Level of Service A during the full operational capacity of the high school in *Sydney Olympic Park new high school Transport Access Impact Assessment* by SCT Consulting, 2021.

- Hill Road/Burroway Road
- Burroway Road/Waterway Street

¹ Refer Sydney Olympic Park new high school Transport Access Impact Assessment_v5.1.pdf, page 50 for expected total future traffic generation, which totals more than 500 vehicles per hour in the peak on Burroway Road at this location.

- Burroway Road/Wentworth Place
- Pedestrian zebra Crossing on Burroway Road.

Hence, the intersection performance is expected to be acceptable during the construction phase as well.

A Driver Code of Conduct is provided in **Appendix D** and will be provided to all truck drivers before they are active on the job.

4.2.1 Cumulative impacts

Major projects and developments in the area awaiting delivery are listed below:

- 9-11 Burroway Road balance of lands, Landcom, mixed use residential and non-residential: site is currently in the planning proposal phase and unlikely to be under construction in coming two years
- Parramatta Light Rail Stage 2: while funded, construction wouldn't start until at least Q3 2024
- 14-16 Hill Road, Sekisui House: a development application was lodged in December 2021, so there is the
 potential that if it is approved imminently, there could be concurrent construction.
- Block H, Billbergia mixed use: Currently the subject of further planning including a DCP amendment. Unlikely to be under construction concurrently.

There could therefore be concurrent construction activities occurring between 14-16 Hill Road and the site. The sites are 340m distant and share only one intersection (Hill Road / Burroway Road). The cumulative traffic impact of the operation of the Wentworth Point new High School was assessed with the full traffic generation of the 9-11 Burroway Road, 14-16 Hill Road and Block H developments all at full construction. The impacts were shown to be manageable. Therefore, though concurrent construction could occur, the congestion impacts are expected to be less than has been assessed in the SSDA approvals.

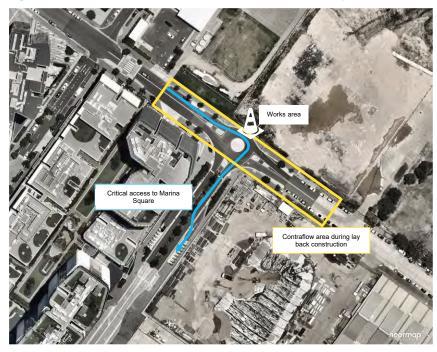
4.3 Impacts to Marina Square

The primary retail parking area for Marina Square is accessed via a southbound ramp on Wentworth Place. There are no alternative routes to this parking facility. During the construction, this route needs to remain viable for customers. During the construction of the layback on Burroway Road/Wentworth Place, the work zone needs to be compatible with this movement. The only way to retain the route and provide the minimum 1.2m distance between the work zone and cars is to convert Burroway Road into contraflow lane operations. All traffic on the northern side of the intersection would need to be diverted to the southern side to avoid conflict with workers.

This is covered in the Traffic Control Plans provided in **Appendix B**. Refer to **Figure 4–2** for a summary. A road occupancy license would be required to undertake these works and will be applied for directly to City of Parramatta Council.

The contraflow proposed in **Appendix B** is only required during the construction of the layback. The dates of construction are yet to be confirmed but would occur during the early works phase (October 2022 – January 2023). The contraflow would be in place likely less than two weeks subject to construction programming.

Figure 4–1 Contraflow area and critical access route for Marina Square access



4.4 Traffic controllers

Traffic controllers will be used to stop traffic on the public streets and accesses to allow trucks to enter or leave the site. Where possible, vehicles must enter and exit the site in a forward direction. They must wait until a suitable gap in traffic allows them to assist trucks to enter or exit the site. The Roads Act does not give any special treatment to trucks leaving a construction site, the vehicles already on the road have the right-of-way. Vehicles entering, exiting, and driving around the site will be required to always give way to pedestrians.

The proposed locations for traffic controllers are shown in Figure 4-2, including two temporary accesses.

Figure 4–2 Proposed locations for traffic controllers



Truck movements to site will be managed so that if trucks arrive, the driveway will be sufficiently clear so that they can enter site without queuing in the road network. This will be managed by site managers and traffic controllers.

Road Occupancy Licenses will be applied for the following approval for locations where traffic control is required. A detailed traffic control plan (TCP) is included in **Appendix B**.

5.0 Driver Code of Conduct

Drivers are to abide by this code of conduct.

Table 5-1 Driver code of conduct

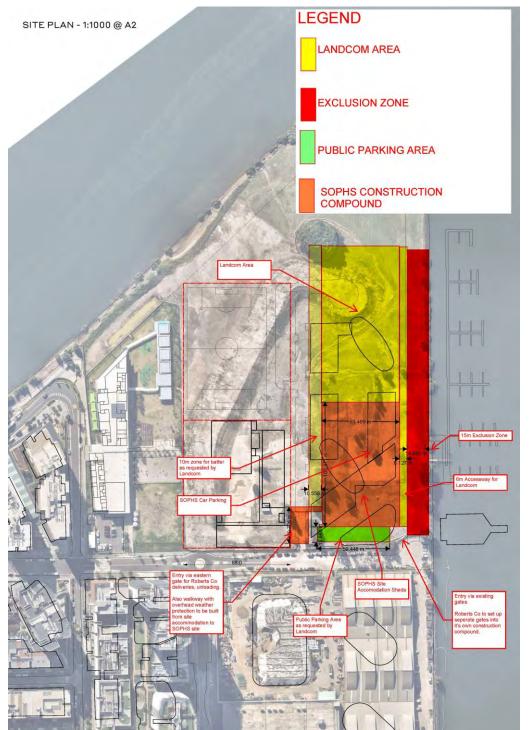
Requirement	Details
Legal	 Drivers shall be appropriately and currently licensed Drivers are to be aware of and abide by the Road Rules 2014 (NSW) Where fitted, seat belts must be worn at all times whilst operating equipment Parking shall be in designated areas in accordance with posted signage and road line marking where provided At all times drivers shall maintain a safe speed whilst taking into account nominated speed limits, weather conditions and site signage Drivers shall comply with signposted load limits Drivers shall be aware of pedestrian crossings and give way to pedestrians
Environment	 Drivers shall only arrive at the site at authorised delivery times Deliveries are to be scheduled with the shift supervisor Drivers shall ensure loads are covered when delivering products or leaving the site with a full load Drivers shall arrange for the clean-up of any spillage emanating from the truck e.g. due to overloading, sprung tail gates Drivers shall ensure there are no unauthorised discharges into adjacent drains or waterways Compression brakes must not be used within the suburb of Wentworth Point Trucks to avoid idling near schools, shopping centres and schools
Haulage routes	 All haulage trucks travelling to and from the site will do so via Hill Road and Burroway Road only. Truck traffic must not use Wentworth Place, Footbridge Boulevard or other minor residential streets. Trucks are to conduct a U-turn on site and not in the public road network. Trucks are to enter and leave the site in a forward direction. Heavy vehicle use of Burroway Road to be av during school pick up and drop off hours (8.00-9.30am and 2.30-4.00pm).
Site management	 Drivers will be inducted from the site prior Drivers are authorised to enter the site to carry out their allocated tasks. Access to other areas of the plant is prohibited Walk, don't run; beware of slip, trip and fall hazards, especially when exiting a vehicle Drivers are to inform the shift supervisor of any incidents as soon as safely achievable

6.0 Construction Worker Transportation Strategy

6.1 Provision of car parking

Landcom and SINSW have collaborated to allow the use of NSW Government land to house construction worker parking for the duration of the project delivery. Land designated as "SOPHS Construction Compound" in **Figure 6–1** has been agreed for construction worker parking.





Source: Roberts Co, 2022

The site will allow for a total of 300 workers to park on site, which is the maximum number of workers expected to visit site at the peak of construction.

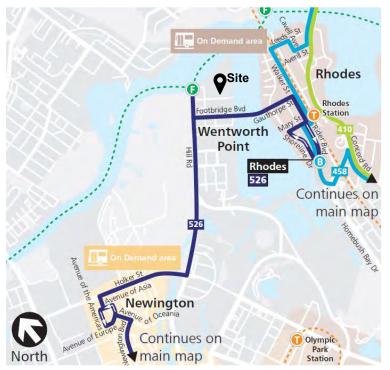
This is sufficient for construction worker parking and will be the most attractive option. Located immediately adjacent to the site, it will be more attractive than other parking options and will not be time restricted or paid parking. As a result, there is no expected overspill parking demand on-street or in other car parking lots in the peninsula.

6.2 Use of walking, cycling and public transport to access site

Construction workers will be encouraged use public transport to access site, reducing the impact on the road network and local parking demands.

Figure 6–2 shows the public transport network in the vicinity of the site. Bus route 526 provides connectivity to Sydney Olympic Park and Rhodes Train Stations.

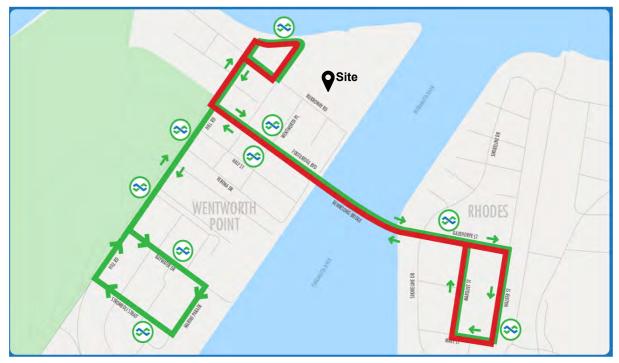
Figure 6–2 Public transport network



Source: Transport for NSW

The Baylink shuttle network provides connectivity to the Sydney Trains rail network in Rhodes (**Figure 6–3**). The Baylink shuttle is a privately funded service so may not continue in operation.





Source: Baylink Shuttle, 2022

This will not result in any increase in on-street parking or demand for other parking facilities in the area.

7.0 Conclusions

With the majority of construction movements occurring outside of the busiest peak periods, the transport network is expected to have sufficient capacity to accommodate the additional traffic movements. With the proposed management measures, the impacts on other road users are mitigated.

APPENDIX A



"Great transport and great places are impossible to separate"

Qualifications

Bachelor of Engineering (Civil) (Hons)(Adv) Bachelor Commerce (Fin) CPEng | NER

Affiliations

Member, Engineers Australia

Referees

Ryan Thoroughgood Senior Project Director School Infrastructure NSW Ryan.Thoroughgood7@det.nsw.edu.au 0418 336 016

Edmond Platon Network Development Leader Greater Sydney Transport for NSW edmond.platon@transport.nsw.gov.au 0466 312 054



Jonathan Busch

With over a decade of experience in transport advisory, Jonathan Busch has worked at major engineering consultancies (AECOM & Cardno) and for TfNSW. Jonathan is a project manager, director, and technical lead, having a breadth of experience in complex projects such as Camperdown Health and Education Precinct Transport Study, Royal Prince Alfred Redevelopment, Bays Precinct, over a dozen new or expanded school projects, WestConnex Stage 1b tender traffic modelling, Sydney Light Rail, Parramatta Light Rail, and program management of transport for land use change led by NSW Government proponents.

Jonathan has significant expertise in understanding the value and role of planning in delivering customer outcomes that have been delivered. His work on WestConnex Stage 1b LSJH tender in Vissim contributed to the tenderer's innovative design at Concord ramps, which offered NSW a significant value-add compared with the reference design and is now constructed.

With over a dozen school projects and three hospital projects, he understands the challenges in preparing tailored designs to unique user requirements. As a chartered and nationally registered traffic engineer, Jonathan draws on both engineering and behavioural designs to solve complex problems.

Areas of Expertise

- Program management with diverse stakeholders
- Transport for land use change policy leadership
- Multi-modal strategic and detailed transport planning for places and corridors
- Communication
- Project management of dynamic projects.

Key Projects

- NSW Schools Expansion Transport Assessment | SINSW
- RPA Hospital Redevelopment, Camperdown | Health Infrastructure NSW
- The Bays Precinct Transport and Mobility Plan | UrbanGrowth
- Parramatta Light Rail Transport Integration Modelling Advisory | TfNSW
- Greater Parramatta & Olympic Peninsula Program (GPOP) Strategic Case | TfNSW
- Springhill Masters Roads Traffic Modelling | TfNSW
- Parramatta Outer Ring Road Problem Definition Report | TfNSW
- Double Bay Pedestrianisation Study | Woollahra Council
- WestConnex M4 East Tender | LSJH Consortium
- Sydney Airport Ground Access Solutions | Sydney Airport
- Planned Precincts and Growth Areas | TfNSW
- Brisbane Bus and Train Tunnel EIS | Brisbane City Council
- Western Sydney GIC Project Management | TfNSW CSP
- Intelligent Congestion Management Program | Transport Management Centre
- Rouse Hill LLGPT Northern Residential Planning Proposal | GPT
- Newcastle Minmi Estate Land and Environment Court Proceedings | Winten Property Group

Relevant Experience

Project NSW School Expansion & New Builds Role Project Director & Technical Lead Client School Infrastructure NSW Time Period 2019-2022	 SINSW) is overseeing a once in a generation investment into school expansion, which includes expansion or new builds across Greater Metropolitan Sydney; Jonathan has a led a technical team to provide transport planning and traffic assessment services for more than 14 primary and high schools; Provided rapid transport assessment using spatial analytics and focusing on behaviour change programs, transport impact assessment to support Planning Proposals, Traffic Access Impact Assessments, Transport Access Guides and School Travel Plans, swept path assessments and extensive stakeholder consultation.
Project RPA Hospital Redevelopment Role Project Manager Client Health Infrastructure NSW Time Period 2019-2021	 Project Manager for the development of the transport, traffic and parking plan for the expansion of the Royal Prince Alfred Hospital. NSW Government has committed \$750m to the expansion of the hospital, which will have major impacts on traffic volumes, parking demand and pedestrian flows. The transport, traffic and parking plan will support the overall Precinct Plan by setting out clear proposals for better access to the hospital campus, including better public transport access; The plan has recently been endorsed by senior stakeholders, including the Chief Executive of the Sydney Local Health District, and now forms the basis for the next phase of implementation in consultation with TfNSW, City of Sydney and Inner West Council.
Project The Bays Precinct Transport and Mobility Plan Role Deputy Project Director & Program Manager Client UrbanGrowth Time Period 2015-2017	 Development of leading policy advice in context of significant planning uncertainty, multiple industry interfaces (ports, maritime, road project delivery, property and Government developer) and diverse stakeholders. Google negotiations advisor (responses to term sheet, led development of TfNSW advice and negotiations presentation material). Management of over \$2m with multiple consultants within agreed budgets. Managed cabinet reporting. Advice on methodology to determine feasible development within different transport scenarios.
Project Parramatta Light Rail Network Management Strategy Role Transport Planning Lead and Project Manager Client Client Transport for NSW Time Period 2017	 Parramatta Light Rail Stage 1 received project approval by the Minister for Planning, which included several conditions which need to be satisfied. Planning condition E10 in the conditions of approval is for a Network Management Strategy. The strategy is complete but confidential. Project managed the preparation of the strategy, working closely with the client to shape manage timeframes, deliverables, and expectations. Led preparation of (and contributed to) a network management strategy, which considered all modes of transport in the area affected by the project as well as construction details. Worked with diverse stakeholders to agree on contents of the strategy.



Curriculum Vitae

Tim Emslie Tel: 0417 467 814 Email: tim@whodares.com.au

Tim Emslie

SENIOR EVENTS MANAGER



QUALIFICATIONS

- Advanced Diploma of Events (Credit Level) – Northern Sydney Institute (Ryde TAFE) 2015
- Bachelor of Music (Contemporary Performance) - The Australian Institute of Music; Sydney NSW, 2007-2009
- Several credits and distinctions towards partial completion of a Bachelor of Computer Science (Games Technology) with - Charles Sturt University; Bathurst NSW, 2005-2006
- Higher School Certificate St Ignatius College, Riverview; Sydney NSW, 1998-2004
- NSW Drivers Licence (Class C)
- Forklift Licence
- First Aid Certificate

INTERESTS

- Long distance cycling and trail running
- Ride organiser for the Audax Australia long distance cycling club since 2011
- Hiking and camping

Personal statement

I have eight years of experience in a broad variety of roles involving events management. I tackle every new task with enthusiasm and drive, and I aim to achieve excellence in event management through attention to detail and a desire to create a memorable and safe experience for participants, volunteers and staff members alike.

Each event has its unique challenges that require nimble thinking and team work to overcome unforeseen circumstances.

Key experience

Planning and permitting of large scale outdoor events

Liaison with sponsors and participants

Event supplies and documentation

Event execution and reporting

Current employment

Senior Events Manager Who Dares February 2017 - Current



Who Dares is a leader in the field of traffic planning and management. Our reputation for excellence is founded in our technical expertise, ability to manage risk, extensive experience and resourcefulness. Who Dares is able to deliver traffic planning and risk assessments for complex, large scale, multi stake holder events as well as the film and television industry.

My key responsibilities include:

• Meeting clients, establishing the client's needs, developing a plan that will satisfy those needs and costing the planning and implementation of the plan.

- Developing and writing plans, organising resources and managing the deployment of resources including very large teams of workers.
- Liaising with stakeholders and government agencies to obtain approvals.
- Filing debrief reports and attend post event meetings to support and promote continual improvement.

Curriculum Vitae

Previous employment

Field Operative

Moreton Hire

January 2016 - February 2017

As a Field Operative I have gained experience bumping in/out a wide range of different events in various venues all over Sydney and Regional NSW. The scale of these setups start at something as simple as a small furniture delivery right through to multi day exhibition and outdoor event builds.

Event Operations Assistant

Oxfam Australia

June 2016 to September 2016

My key responsibilities include:

- Supporting the Events Operations Coordinator to manage on the day delivery of the Trailwalker event including the implementation of event plans and operational plans
- Book event staff, accommodation, flights and event vehicles

Event Coordinator; Corporate Orientations and Outreach Coordinator; and Ride Guide roles

CauseForce Australia

Oct 2011 - Nov 2015

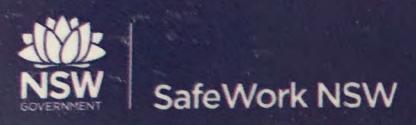
I have four years' experience in event organisation with CauseForce Australia and during this time I was promoted to the role Sydney Event Coordinator for the 2-day Ride to Conquer Cancer & The Weekend to End Women's Cancers.

My time at CauseForce has given me an excellent understanding of the requirements needed for the successful execution of a major multi-day event including thorough planning, good communication, teamwork and running to schedule. I commenced as a Ride Guide in October 2011 making registration and support calls to participants. In 2012, I moved into the role of Orientations and Outreach Coordinator, running all the orientations for the Sydney Event Sched In September 2013, I was promoted to Event Coordinator for the Sydney Ride and Walk events. I designed a completely new course for both events which required negotiation with local councils and close coordination with NSW Police and Traffic Management consultants. I presented details of the planned event to the NSW Department of Premier and Cabinet for approval.

In September 2013, I was promoted to Event Coordinator for the Sydney Ride and Walk events. I designed a completely new course for both events which required negotiation with local councils and close coordination with NSW Police and Traffic Management consultants. I presented details of the planned event to the NSW Department of Premier and Cabinet for approval.







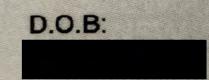
WORK HEALTH & SAFETY TRAFFIC CONTROL WORK

Timothy Scott EMSLIE

Card No: TCT0073149

Date of Issue: 30/05/2017

Type of traffic control work: IMP PWZ TCR



APPENDIX B Swept Path Assessment



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REVIEWED

AUTHORISED

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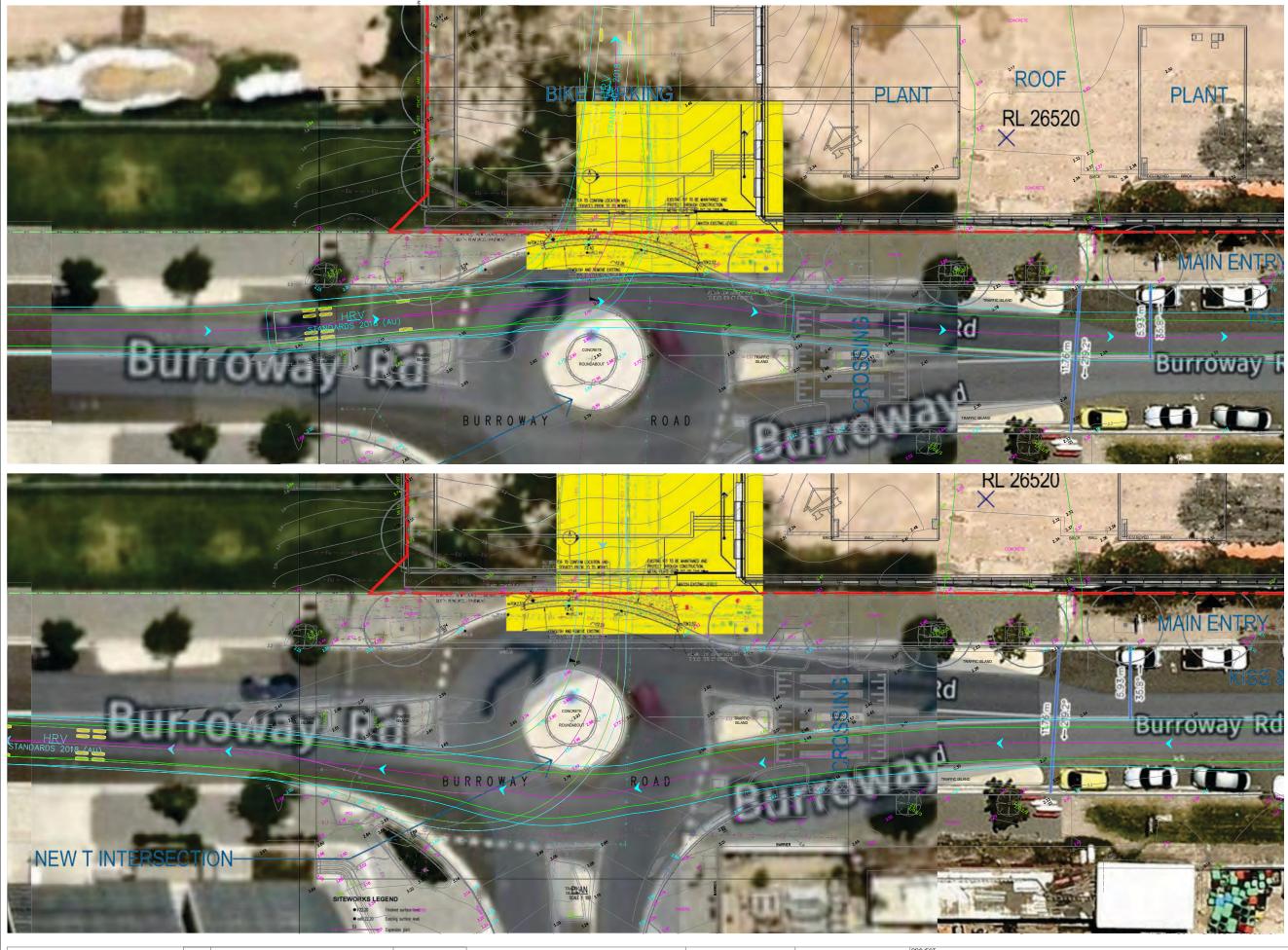
SCT_00265_SOPHS ECI Construction Traffic Managment Plan HRV movements at Burroway Road/Waterways Street zebra crossing

AWING NUMBER SCT_00265-01-001





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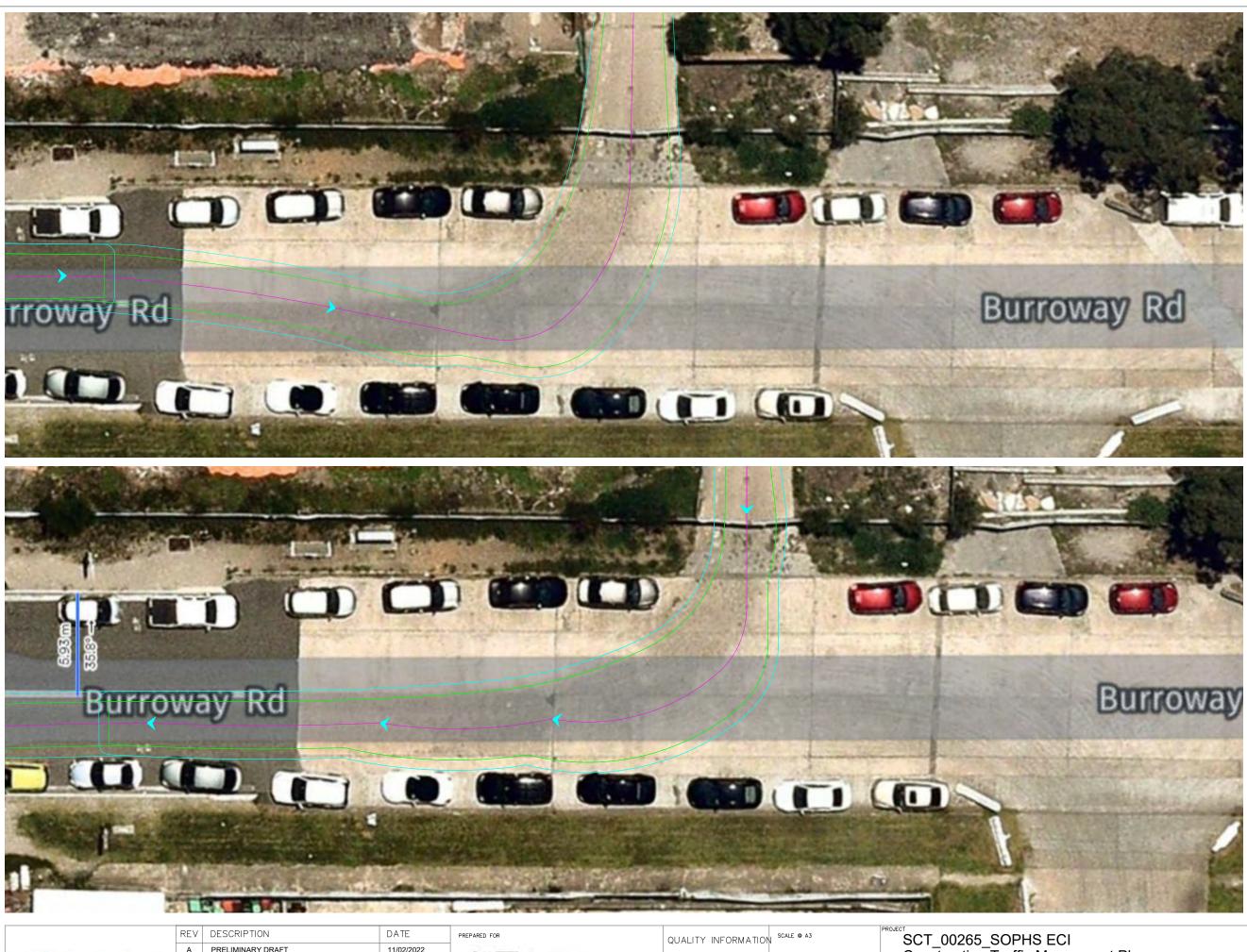
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Construction Traffic Managment Plan HRV movements at Eastern Access

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Semi trailer movements at Burroway Road/Hill Road

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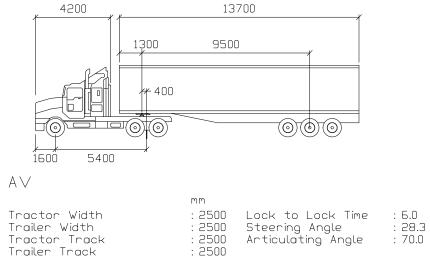
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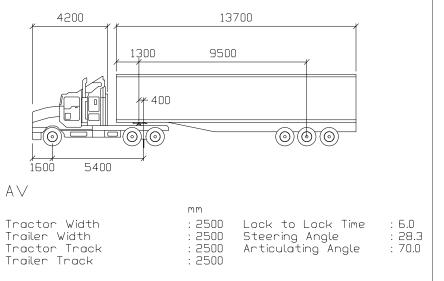
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SCT_00265_SOPHS ECI Construction Traffic Managment Plan Semi trailer movements at Burroway Road/Waterways Street zebra crossing

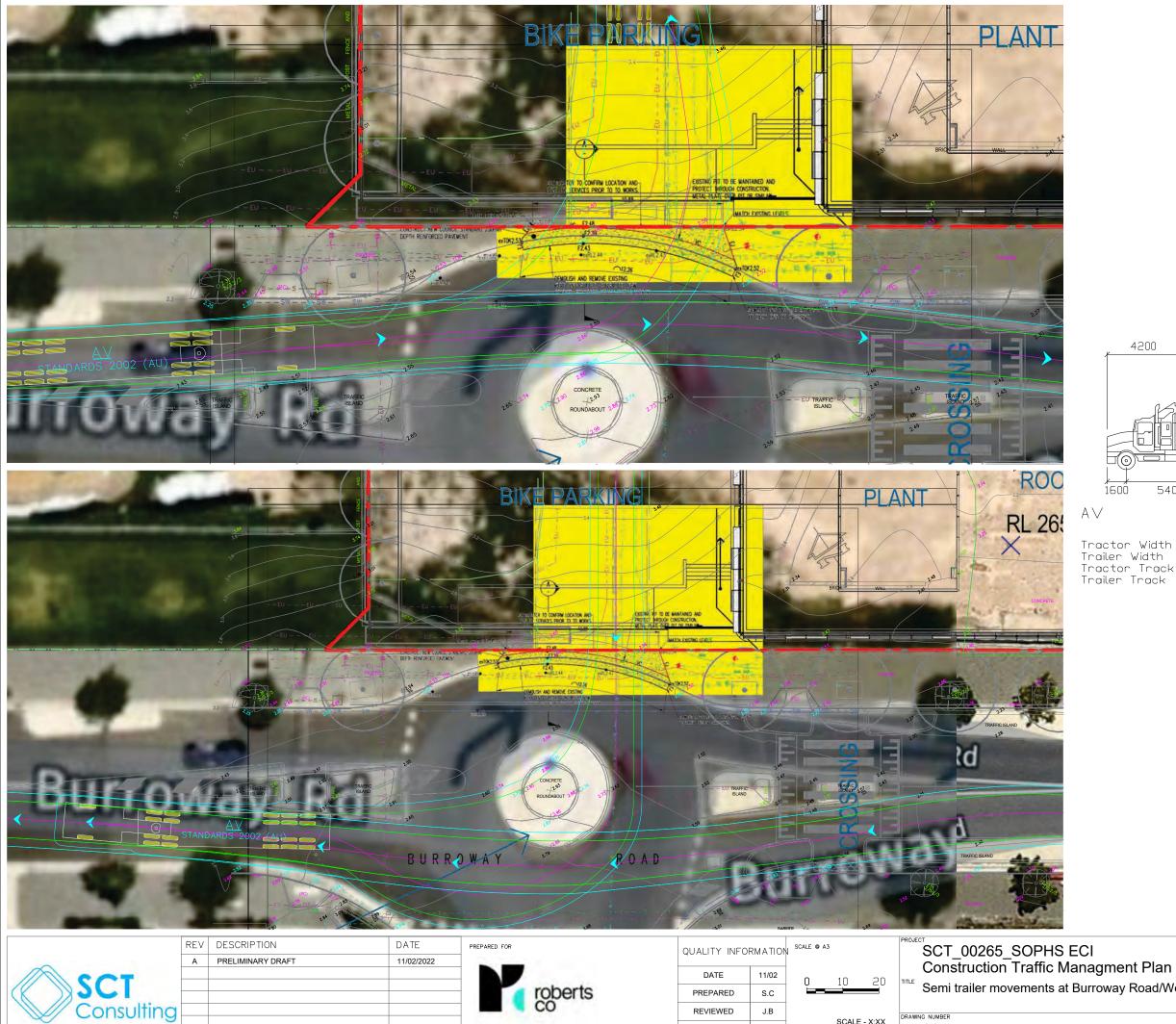
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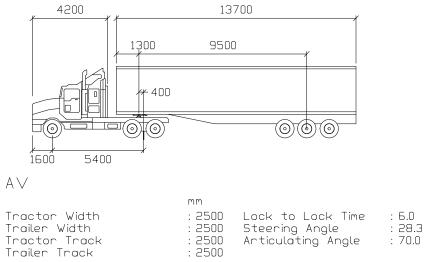
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Semi trailer movements at Burroway Road/Wentworth Place



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